APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,380	05/19/2005	Serge Fdida	35201-003US1	7092

69713   7590   12/01/2008
OCCHIUTI ROHLICEK & TSAO, LLP
10 FAWCETT STREET
CAMBRIDGE, MA 02138

EXAMINER
TURNER, ASHLEY D

ART UNIT	PAPER NUMBER
2454	

NOTIFICATION DATE	DELIVERY MODE
12/01/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

INFO@ORTPATENT.COM

	Application No.	Applicant(s)
Office Action Summary	10/535,380	FDIDA ET AL.
	Examiner	Art Unit	
	ASHLEY D. TURNER	2454	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 July 2008</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-10</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-10</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>11/14/2005</u>.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 6 are rejected under 35 U.S.C. 102 (b) as being anticipated by Baker et al

hereinafter Baker (U.S. 5,793,954).

Referring to claim 6 Baker discloses a computer system for triggering at least one action

on digital communication data when they belong to one and the same semantic flow for

which said action is designed, a digital processing device a filtering engine [[1]] and

[[of]] an actions engine [[2]]; a database [[6]] for feeding the filtering engine [[1]] with at

least one filter having three possible states which result from one or more conditions on

one or more protocol attributes specified for said semantic flow [[,]]; [[-]] at least one

data structure for cataloguing a valid state corresponding to protocol attribute values

which confirm that said condition or conditions are satisfied (Col. 1 lines 20-25

 Conventional network protocol analyzers provide, for a predefined set of network frame

structures or protocols, a system for monitoring the activity of a network and the stations

on it by allowing network traffic to be captured and stored for later analysis. Common

capture and analysis capabilities include the gathering of statistics, subsequent report

generation, the ability to filter frames based on specific criteria, and the ability to

generate network traffic.) , an invalid state corresponding to protocol attribute values

which confirm that said condition or conditions are not satisfied, an uncertain state

corresponding are or are not satisfied, each protocol attribute being specified by an

ordered sequence of protocol names used in the semantic flow and by a parameter name

conveyed by a protocol whose name is indicated in said ordered sequence of protocol

names (Col. 16 lines If a lookup structure exists for a particular field but the extracted

value is not found therein (at 314 and 316), parsing still continues with the next defined

field of the current protocol. However, the value is considered invalid. Values or ranges

of values found in configured lookup structures are considered to be valid. The Prot and

NextIndex values associated with a value or range found are used to specify

NextProtocol, the protocol description (at 308) to be used after current protocol header

parsing is completed, and the index of the next field (at 310) is used to determine where

parsing of the current protocol will continue after the current field. The first valid field

parsed in a protocol that specifies the NextProtocol has precedence over all subsequent

NextProtocol specifiers (at 306). The ValidateValue control logic returns an updated

CurField value (at 312 and 316) together with a valid/invalid indication, and where

indicated (at 308) may return an updated value for NextProtocol. Using value

0.times.8888 as an example, if the ValidateValue control logic is applied to the Ethernet

Type field and associated lookup structure shown in FIGS. 4a and 4d respectively, the

lookup structure would be found (at 302), the value will be found in it (at 304), the

associated Protocol field found with the range containing 0.times.8888 value will be used

to update the NextProtocol variable (at 308) if it is NULL (at 306), and the associated

Next Index field will be used to update the CurField variable)., an invalid state

corresponding to protocol attribute values which confirm that said condition or conditions

are or not satisfied, each protocol attribute being specified by an ordered sequence of

protocol names used in the semantic flow and by a parameter name conveyed by a

protocol whose name is indicated in said ordered sequence of protocol names; [[-]]

means [[100]] for receiving communication data as long as these data have not afforded

any protocol attribute value other than those from which said uncertain state of the filter

results; and [[-]] means of transmission [[117]] of communication data useable by the

action engine [[2]] to trigger said action when said valid state is contained in the data

structure [50 , 52,52] (Col. 17 lines 63-67 -Col.8 lines1-21) If Index is less than

NextCriteriaIndex (at 402) it indicates that this filter criteria does not need to be

evaluated. This may occur because a filter channel has been satisfied and

NextCriteriaIndex has been set to TotalCriteria to disable further filter processing. If

Index is greater than NextCriteriaIndex (at 404) this indicates that a filter criteria was

skipped in the evaluation of this filter channel which invalidates the filter result. In this

case, further filter evaluation is disabled (at 414) by setting NextCriteriaIndex to

TotalCriteria and ApplyFilter returns to the caller. If Index and NextCriteriaIndex are

equal, the field value is found (at 406) in the associated lookup table, NextCriteriaIndex

is updated with the associated NextIndex value and if the associated return value status is

PASS.sub.-- FRAME, the System Filter Status is updated to PASS.sub.-- FRAME. In this

preferred embodiment, the range of possible values for a field must be fully covered.

Similarly, in the preferred embodiment a frame will be completely parsed for statistics

gathering. Criteria (0) cannot be used to determine a PASS/FILTER.sub.-- FRAME result

for the filter expression above because it must be logically AND'ed with criteria (1). This

is illustrated in FIG. 10b, where every value results in no change to the status. The logical

AND with criteria (1) is implemented using the NextIndex value. If criteria (0) is FALSE

then NextIndex is 2 which causes criteria (1) to be skipped, otherwise NextIndex is 1.)

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claim 1-4, 5-10 are rejected under 35 U.S.C. 102 (b) as being unpatentable over Baker

(U.S. 5,793,954) in view of Smith (US 2003/0041050 A1).

Referring to claim 1 Baker discloses a method for triggering by means of a digital

processing device (1,2) , at least one action on digital communication data when they

belong to one and the same semantic flow for which said action is designed, comprises:

feeding the device with at least one filter having three possible states which result from

one or more conditions on one or more protocol attributes specified for said semantic

flow, a valid state corresponding to protocol attribute values which confirm that said

condition or conditions are satisfied (Col. 1 lines 20-25 Conventional network protocol

analyzers provide, for a predefined set of network frame structures or protocols, a system

for monitoring the activity of a network and the stations on it by allowing network traffic

to be captured and stored for later analysis. Common capture and analysis capabilities

include the gathering of statistics, subsequent report generation, the ability to filter frames

based on specific criteria, and the ability to generate network traffic.), an invalid state

corresponding to protocol attribute values which confirm that said condition or

conditions are not satisfied, an uncertain state corresponding are or are not satisfied, each

protocol attribute being specified by an ordered sequence of protocol names used in the

semantic flow and by a parameter name conveyed by a protocol whose name is indicated

in said ordered sequence of protocol names (Col. 16 lines If a lookup structure exists for

a particular field but the extracted value is not found therein (at 314 and 316), parsing

still continues with the next defined field of the current protocol. However, the value is

considered invalid. Values or ranges of values found in configured lookup structures are

considered to be valid. The Prot and NextIndex values associated with a value or range

found are used to specify NextProtocol, the protocol description (at 308) to be used after

current protocol header parsing is completed, and the index of the next field (at 310) is

used to determine where parsing of the current protocol will continue after the current

field. The first valid field parsed in a protocol that specifies the NextProtocol has

precedence over all subsequent NextProtocol specifiers (at 306). The ValidateValue

control logic returns an updated CurField value (at 312 and 316) together with a

valid/invalid indication, and where indicated (at 308) may return an updated value for

NextProtocol. Using value 0.times.8888 as an example, if the ValidateValue control logic

is applied to the Ethernet Type field and associated lookup structure shown in FIGS. 4a

and 4d respectively, the lookup structure would be found (at 302), the value will be found

in it (at 304), the associated Protocol field found with the range containing 0.times.8888

value will be used to update the NextProtocol variable (at 308) if it is NULL (at 306), and

the associated Next Index field will be used to update the CurField variable). ; applying

the three- state filter to said communication data as long as these data have not afforded

protocol attribute values other that those from which said uncertain state of the filter

results; and Col 1. lines 45-65 A frame filter consists of one or more criteria which

specify one or more valid values for a frame (or segments of a frame). Frame filtering

criteria are typically implemented using an offset (from frame or protocol header start), a

length in bits which defines a field, a value for comparison, and mask values for

identifying relevant and irrelevant bits within the field. For multiple value filter criteria,

the result from each filter value is logically OR'ed together to obtain an overall result.

Therefore, each additional result adds to the processing required to filter a given field.

For filtering on optional protocol fields that do not occur at the same relative offset in

each protocol frame, this method is time-consuming. Thus, it would be desirable to

perform filtering on both fixed and optional variable offset fields for any number of

values or ranges of values without incurring any additional overhead). Baker did not

discloses triggering said when said valid state of the filter results from protocol attribute

values afforded by the communication data. The general concept of triggering said when

said valid state of the filter results from protocol attribute values afforded by the

communication data is well known in the art Smith. Smith discloses triggering said when

said valid state of the filter results from protocol attribute values afforded by the

communication data ([0075] FIG. 2 illustrates how campaign scenarios and rules are used

together to provide a personalization system in accordance with an embodiment of the

invention. As shown in FIG. 2, an events service 130 is used to receive a particular event

and to pass notification of this event to a campaign event listener 132. Events are the

driving force that are used to trigger real-time changes within the rules engine that in turn

determine the output given to the user. For example, an event may be a user login event,

or in the case of a web application a request from the user to select a particular page or to

submit a certain type of form. Events need not necessarily triggerrules to take effect,

since some events can be purposefully ignored by the events service. The campaign event

listener 132 can also be used to filter out certain event types, passing the event to the

campaign service 134 for further processing. The campaign service 134 loads the

currently active campaigns, i.e. those campaigns specified by an administrator or being

currently in place. If the event it receives is from a particular campaign then the campaign

service loads that campaign. It then uses this campaign information to build a map of

campaign scenario ids and to pass this information along to the scenario service 136. The

scenario service 136 acts as a subset of the campaign service 134, and is used to filter out

scenarios for which the user has reached an end state. If the user has reached an end state,

then this implies there is no further work to be done on the part of the system and it is up

to the user to determine the next step. However, when the user has not reached an end

state the scenario service loops to determine if the event type is valid for the particular set

of scenario rules in effect. If it is not valid then the scenario may be ignored. If additional

customer segments are needed the scenario service can also be used to execute a

segments ruleset. The scenario service may also be used to execute the scenario ruleset

and get a list of action definitions. In order to perform this processing the scenario service

136 uses rules from the rules manager 138 to determine the rules in effect for that

particular scenario. Each rule typically specifies at least one or more action definition.

For each action definition from each scenario, the scenario service gets the action object

from the action service 140. As it runs each action object, and depending on the actual

implementation different events may occur. For example, as shown in FIG. 2 these events

may also compel such actions as the end scenario action 142, which uses the scenario

service 144 to set an end state on the user for that campaign scenario; the ad placeholder

action 146, which uses the ad bucket service 148 to put an ad query in the user's bucket;

the mail action148, which uses the mail service 150 to batch an email to the user for later

sending; and the offer discount action 152 which uses the discount association manager

154 to give the user a discount on their session. While the examples shown in FIG. 2

illustrate a variety of features and services that can be provided by the invention, it will

be evident to one skilled in the art that the event examples shown are not intended to be

exhaustive, but are merely illustrative of the types of events, scenarios and services that

can be used with the invention. It will be evident that other types of rules, events and

appropriate services can be added to best suit the needs of the particular organization or

e-commerce application. It would have been obvious to one of ordinary skill in the art at

the time of the invention to modify Baker to include triggering said when said valid state

of the filter results from protocol attribute values afforded by the communication data in

order to provide a router –based switching system that is processor –based and provides

a fully flexible state machine for routing data packets.

Referring to claim 2 Baker and Smith discloses all the limitations of claim 2 which is

described above. Baker also discloses to apply the filter to said communication data, the

method further comprises: dispatching one of said protocol attributes to a protocol

interface allocated to the protocol indicated in the ordered sequence of protocol names,

until the state of the filter is valid or invalid or until all the protocol attributes have been

dispatched; searching through the communication data for value of the specified

parameter and transmitting this value to the digital processing device if it finds the

former; and evaluating the state of the filter which corresponds to the value or the

absence of value transmitted by the protocol interface. (Col. 16 lines 33-58   The

ValidateValue control logic shown in FIG. 14 is performed on each extracted field value

by the ParseFields control logic (at 214) shown in FIG. 13. Each field may have an

associated lookup structure reference containing one or more values and/or ranges of

values that have a particular meaning for that field. If no lookup structure is configured

for a particular field, all values are deemed to be valid (at 318 and 312), which causes

parsing to continue with the next sequentially defined field of the current protocol

description. If a lookup structure exists for a particular field but the extracted value is not

found therein (at 314 and 316), parsing still continues with the next defined field of the

current protocol. However, the value is considered invalid. Values or ranges of values

found in configured lookup structures are considered to be valid. The Prot and NextIndex

values associated with a value or range found are used to specify NextProtocol, the

protocol description (at 308) to be used after current protocol header parsing is

completed, and the index of the next field (at 310) is used to determine where parsing of

the current protocol will continue after the current field. The first valid field parsed in a

protocol that specifies the NextProtocol has precedence over all subsequent NextProtocol

specifiers (at 306).   The ValidateValue control logic returns an updated CurField value

(at 312 and 316) together with a valid/invalid indication, and where indicated (at 308)

may return an updated value for NextProtocol.)

Referring to claim 3 Baker and Smith discloses all the limitations of claim 3 which is

described above Baker also discloses wherein each filter for feeding said digital

processing device is defined by a logical combination of rules in a first table [[(64]], each

rule being defined in a second table [[(65)]] by verification expression comprising at least

one comparison operator, an argument of which is the protocol attribute. (Col. 17 lines 6-

20 Referring back to the ParseFields control logic shown in FIG. 13, the ParseFields

control logic parses the fields in each protocol header contained in a particular network

frame by using field values obtained in accordance with information specified in

associated protocol descriptions. The ParseFields control logic is applied for each

protocol description required for a particular network frame. If the ParseFields control

logic were applied to the exemplary frame, "Frame (1)," described above, the network

interface system 10 of the present invention would apply the ParseFields control logic

with the protocol descriptions for the Ethernet protocol shown in Table 12, the GP shown

in Table 13, and an unspecified Data protocol description.)

Referring to claim 4 Baker and Smith discloses all the limitations of claim 4 which is

described above. Baker also discloses wherein to evaluate the state of the filter which

corresponds to the value or to the absence of value transmitted by the protocol interface,

the digital processing device evaluates the state of at least one rule in the logical

combination as a function of the transmission of value and then the state given by the

logical combination applied to the evaluated states of rules. (Col. 17 lines 63-67 -Col.8

lines1-21) If Index is less than NextCriteriaIndex (at 402) it indicates that this filter

criteria does not need to be evaluated. This may occur because a filter channel has been

satisfied and NextCriteriaIndex has been set to TotalCriteria to disable further filter

processing. If Index is greater than NextCriteriaIndex (at 404) this indicates that a filter

criteria was skipped in the evaluation of this filter channel which invalidates the filter

result. In this case, further filter evaluation is disabled (at 414) by setting

NextCriteriaIndex to TotalCriteria and ApplyFilter returns to the caller. If Index and

NextCriteriaIndex are equal, the field value is found (at 406) in the associated lookup

table, NextCriteriaIndex is updated with the associated NextIndex value and if the

associated return value status is PASS.sub.-- FRAME, the System Filter Status is updated

to PASS.sub.-- FRAME. In this preferred embodiment, the range of possible values for a

field must be fully covered. Similarly, in the preferred embodiment a frame will be

completely parsed for statistics gathering. Criteria (0) cannot be used to determine a

PASS/FILTER.sub.-- FRAME result for the filter expression above because it must be

logically AND'ed with criteria (1). This is illustrated in FIG. 10b, where every value

results in no change to the status. The logical AND with criteria (1) is implemented using

the NextIndex value. If criteria (0) is FALSE then NextIndex is 2 which causes criteria

(1) to be skipped, otherwise NextIndex is 1.)

Referring to claim 7 Baker an Smith discloses all the limitations of claim 7 which is

described above. Baker also discloses wherein the system comprises a protocol interface

allocated to each useable protocol in the semantic flow, and configured to receive from

the filtering engine [[1]], the protocol attributes defined for the protocol to which the

protocol interface is allocated; [[-]] the protocol interface [(40,41,42,23)] being

configured so as to search through the communication data for the value of the specified

parameter and to transmit this value to the filtering engine [[(1)]] being configured so as

to evaluate the state of the filter which corresponds to the value or to the absence of value

or the absence of value transmitted by the protocol interface. (Col. 17 lines 63-67 -Col.8

lines1-21) If Index is less than NextCriteriaIndex (at 402) it indicates that this filter

criteria does not need to be evaluated. This may occur because a filter channel has been

satisfied and NextCriteriaIndex has been set to TotalCriteria to disable further filter

processing. If Index is greater than NextCriteriaIndex (at 404) this indicates that a filter

criteria was skipped in the evaluation of this filter channel which invalidates the filter

result. In this case, further filter evaluation is disabled (at 414) by setting

NextCriteriaIndex to TotalCriteria and ApplyFilter returns to the caller. If Index and

NextCriteriaIndex are equal, the field value is found (at 406) in the associated lookup

table, NextCriteriaIndex is updated with the associated NextIndex value and if the

associated return value status is PASS.sub.-- FRAME, the System Filter Status is updated

to PASS.sub.-- FRAME. In this preferred embodiment, the range of possible values for a

field must be fully covered. Similarly, in the preferred embodiment a frame will be

completely parsed for statistics gathering. Criteria (0) cannot be used to determine a

PASS/FILTER.sub.-- FRAME result for the filter expression above because it must be

logically AND'ed with criteria (1). This is illustrated in FIG. 10b, where every value

results in no change to the status. The logical AND with criteria (1) is implemented using

the NextIndex value. If criteria (0) is FALSE then NextIndex is 2 which causes criteria

(1) to be skipped, otherwise NextIndex is 1.)

Referring to claim 8 Baker and Smith discloses all the limitations of claim 8 which is

described above. Baker also discloses wherein the database [[(6)]] comprises a first table

[[(64)]] which contains a logical combination of rules for each filter, and a second table

[[(65)]] which contains for each rule, a verification expression comprising at least one

comparison operator, an argument of which is the protocol attribute. (Col. 17 lines 6-20

Referring back to the ParseFields control logic shown in FIG. 13, the ParseFields control

logic parses the fields in each protocol header contained in a particular network frame by

using field values obtained in accordance with information specified in associated

protocol descriptions. The ParseFields control logic is applied for each protocol

description required for a particular network frame. If the ParseFields control logic were

applied to the exemplary frame, "Frame (1)," described above, the network interface

system 10 of the present invention would apply the ParseFields control logic with the

protocol descriptions for the Ethernet protocol shown in Table 12, the GP shown in Table

13, and an unspecified Data protocol description.)

Referring to claim 9 Baker and Smith discloses all the limitations of claim 9 which is

described above. Baker also wherein to evaluate the state of the filter which corresponds

to the value or to the absence of value transmitted by the protocol interface, the digital

processing device is devised so as to evaluate the state of at least one rule on the logical

combination as a function of the transmission of value and then the state given by the

logical combination applied to the evaluated states of rules. (Col. 17 lines 63-67 -Col.8

lines1-21) If Index is less than NextCriteriaIndex (at 402) it indicates that this filter

criteria does not need to be evaluated. This may occur because a filter channel has been

satisfied and NextCriteriaIndex has been set to TotalCriteria to disable further filter

processing. If Index is greater than NextCriteriaIndex (at 404) this indicates that a filter

criteria was skipped in the evaluation of this filter channel which invalidates the filter

result. In this case, further filter evaluation is disabled (at 414) by setting

NextCriteriaIndex to TotalCriteria and ApplyFilter returns to the caller. If Index and

NextCriteriaIndex are equal, the field value is found (at 406) in the associated lookup

table, NextCriteriaIndex is updated with the associated NextIndex value and if the

associated return value status is PASS.sub.-- FRAME, the System Filter Status is updated

to PASS.sub.-- FRAME. In this preferred embodiment, the range of possible values for a

field must be fully covered. Similarly, in the preferred embodiment a frame will be

completely parsed for statistics gathering. Criteria (0) cannot be used to determine a

PASS/FILTER.sub.-- FRAME result for the filter expression above because it must be

logically AND'ed with criteria (1). This is illustrated in FIG. 10b, where every value

results in no change to the status. The logical AND with criteria (1) is implemented using

the NextIndex value. If criteria (0) is FALSE then NextIndex is 2 which causes criteria

(1) to be skipped, otherwise NextIndex is 1.)

Referring to claim 10 Baker and Smith discloses all the limitations of claim 10 which is

described above. Baker also discloses wherein the database [[(6)]] comprises at least a

third table containing several names of actions each designed for a different semantic

flow with which a specific filter is associated. (Col.2 lines 21-29 Finally, as networks

become larger and more complex, the maintenance of a comprehensive statistics database

by each network device becomes more important. Because these statistics databases

typically are not utilized by a maintaining device, but instead are collected by a network

management device, the collection process may affect performance adversely without

any corresponding benefit to the collecting device.) (Col. 17 lines 63-67 -Col.8 lines1-21)

If Index is less than NextCriteriaIndex (at 402) it indicates that this filter criteria does not

need to be evaluated. This may occur because a filter channel has been satisfied and

NextCriteriaIndex has been set to TotalCriteria to disable further filter processing. If

Index is greater than NextCriteriaIndex (at 404) this indicates that a filter criteria was

skipped in the evaluation of this filter channel which invalidates the filter result. In this

case, further filter evaluation is disabled (at 414) by setting NextCriteriaIndex to

TotalCriteria and ApplyFilter returns to the caller. If Index and NextCriteriaIndex are

equal, the field value is found (at 406) in the associated lookup table, NextCriteriaIndex

is updated with the associated NextIndex value and if the associated return value status is

PASS.sub.-- FRAME, the System Filter Status is updated to PASS.sub.-- FRAME. In this

preferred embodiment, the range of possible values for a field must be fully covered.

Similarly, in the preferred embodiment a frame will be completely parsed for statistics

gathering. Criteria (0) cannot be used to determine a PASS/FILTER.sub.-- FRAME result

for the filter expression above because it must be logically AND'ed with criteria (1). This

is illustrated in FIG. 10b, where every value results in no change to the status. The logical

AND with criteria (1) is implemented using the NextIndex value. If criteria (0) is FALSE

then NextIndex is 2 which causes criteria (1) to be skipped, otherwise NextIndex is 1.)

Claim 5 rejected under 35 U.S.C. 103(a) as being unpatentable over Baker (U.S.

5,793,954) in view of Smith (US 2003/0041050 A1) further in view of Kloth (WO

01/22686 A1).

Referring to claim 5 Baker discloses all the limitations of claim 5 which is described

above. Baker did not discloses wherein the method further comprises a step [[103]] in

which the digital communication data are scanned so as to detect any change of value of a

protocol attribute so as to make it possible to evaluate a change of state of the filter which

corresponds to the change of value. The general concept of wherein the method further

comprises a step [[103]] in which the digital communication data are scanned so as to

detect any change of value of a protocol attribute so as to make it possible to evaluate a

change of state of the filter which corresponds to the change of value is well known in the

art as taught by Kloth. Kloth discloses wherein the method further comprises a step

[[103]] in which the digital communication data are scanned so as to detect any change of

value of a protocol attribute so as to make it possible to evaluate a change of state of the

filter which corresponds to the change of value. (Pg. 6 lines 10-30 A set &rules are used

to define a pattern (or set of patterns) to be analyzed (or compared/ attached) in the

incoming IP data flow. The rules can be edited or developed via an appropriate graphical

interface. The rules can be applied on-the-fly (e.g. real-time or online, etc.) via a just-in-

time (JIT) compiler, or the like. The rules might also be imposed at runtime without the

use ofa JIT compiler. The pattern can be located anywhere within the IP flow, e.g. IP

packet headers or packet data. Upon detection of a certain pattern, actions can be

performed upon the IP flow and/or individual IP packets. Such actions can include

routing decisions, wherein the packet is mapped to a certain routing capability. Such

traffic policing capabilities can include Unspecified Bit Rate (UBR), Variable Bit Rate

(VBR), Constant Bit Rate (CBR) or their equivalents. The packet can also be buffered for

sending later, and/or for evening out traffic loads between various points (or nodes) in a

network. In yet another aspect, the routing assignments are mapped onto existing Quality

of Service (QoS) and/or Class of Service (COS) capabilities. In still another aspect, the

data flow is altered or modified as a result of a detected pattern, which is a function of an

associated rule. The detected pattern can be altered or modified. Alternatively, the [P

packet itself can be altered or modified. This would include changing (or exchanging)

destination addresses, or the like, for data packets.In still another aspect, the data flow (or

packets) might be dropped intermittently, or discarded altogether, as a result of a detected

data pattern. For instance, all data packets associated with a certain virus pattern might be dropped or discarded). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Baker to include wherein the method further comprises a step [[103]] in which the digital communication data are scanned so as to detect any change of value of a protocol attribute so as to make it possible to evaluate a change of state of the filter which corresponds to the change of value in order to provide a router –based switching system that is processor –based and provides a fully flexible state machine for routing data packets.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashley d. Turner whose telephone number is 571-270-1603. The examiner can normally be reached on Monday thru Friday 7:30a.m. - 5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached at 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-270-2603.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have questions on access to the Private PAIR system, contact the Electronic Business

Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO

Customer Service Representative or access to the automated information system, call

800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Patent Examiner: Supervisory Patent Examiner

_____   _____

Ashley Turner   Nathan Flynn

   Date:_____   Date:_____

/Nathan J. Flynn/

Supervisory Patent Examiner, Art Unit 2454